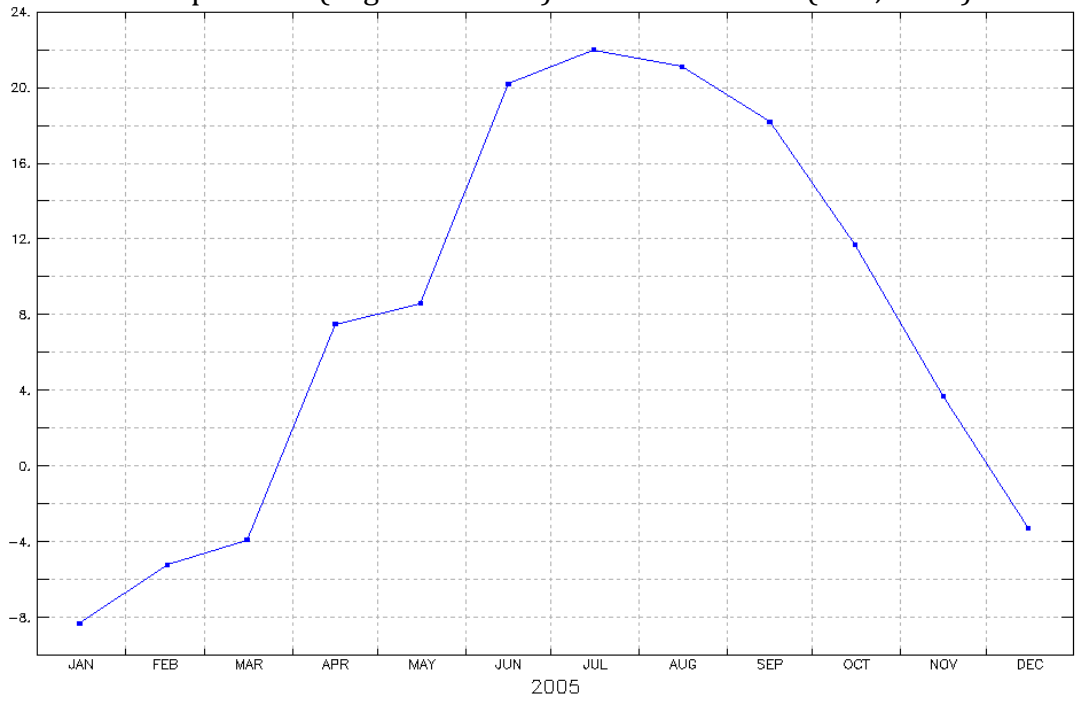
NAME:_____ DATE:_____ CLASS:_____

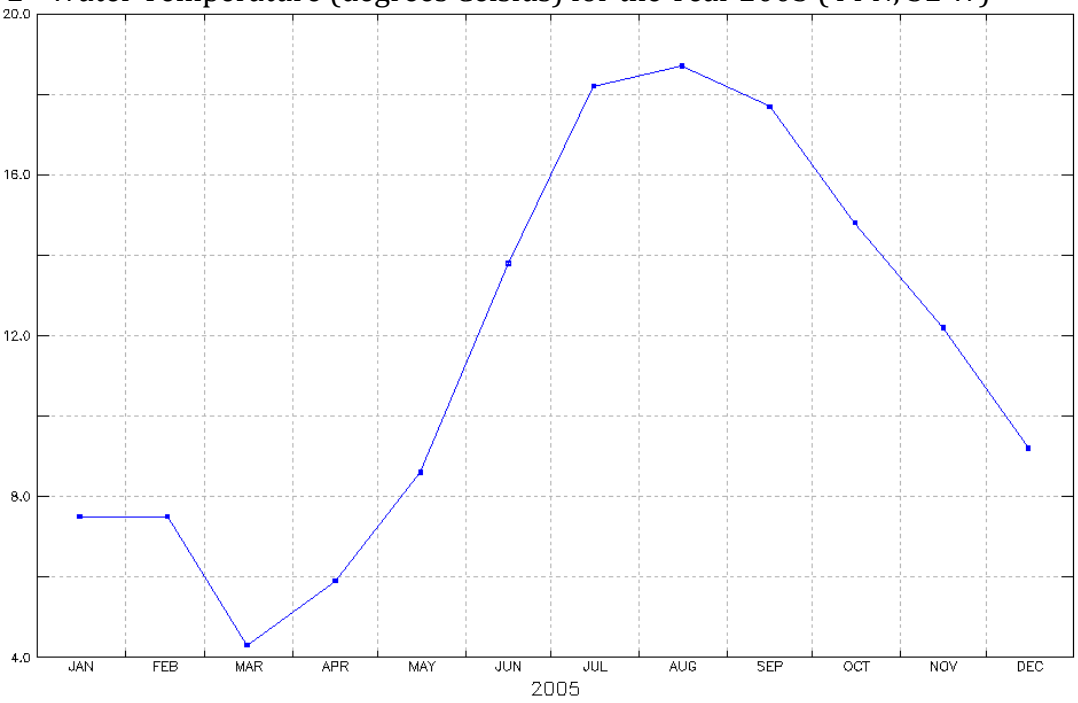
MY NASA DATA: A Comparison of Land and Water Temperature
http://mynasadata.larc.nasa.gov/?page_id=474?&passid=36

Use the following 2 plots to answer the questions at the end of this packet.

Plot 1 – Land Temperature (degrees Celsius) for the Year 2005 (44N, 72 W)



Plot 2 - Water Temperature (degrees Celsius) for the Year 2005 (44 N, 52 W)



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Questions:

1. What changes occur on the graph from January to December for your water location? What changes occur for your land location? Compare the two graphs and list ways in which they are the same or different. How might the changes be related to the changing seasons?

2. When is the highest temperature obtained for your water and land location? When is the lowest temperature obtained for your water and land location? What is the lag time (if any) between these maxima and minima? Explain the reasons for the lag times or differences in values between maxima and minima in terms of specific heat of water and land.

3. What causes one material to heat up or cool down faster than the other? Which has the greater capacity to store heat? Which do think has the higher specific heat?